see in which the State of Tennessee was interested, was no reason why the same should not be filed, as the Commissioners had had the same in their possession since their appointment in 1918. And when the Exceptor stated its position to Counsel for the State of Arkansas, he at once addressed a communication to the Commission stating that Exceptor's position was correct, and that the said maps should be immediately filed. Without these maps, many of which are essential to a correct understanding of the vast amount of testimony introduced, Exceptor respectfully submits that the report of Commission should not be considered at all.

IV

Because the overwhelming preponderance of credible proof shows that on account of the fact that up to the time of the avulsion no map since 1823 had been made which tied the channel of the river to any fixed monument, the change of physical conditions taking place during the period, nearly fifty years, that has elapsed since the cut-off, the entire filling up of the old bed, overgrown with trees of large size, and loss of its identity, inability to distinguish ridges from banks, banks of old ponds from former river banks, the Commission should have reported that the channel of commerce, as it existed prior to the cut-off, could not now be located with reasonable certainty.

See testimony of J. H. Humphreys who made the actual surveys, locating the channel of the river as it was in 1823, and who in 1901 made actual surveys

and maps, also testimony of Surveyor J. A. Green, who made certain surveys, and also, a map in 1909, Exhibit 10, Page 510, and testimony of G. J. McSpadden, thoroughly familiar with physical conditions, that no surveyor, however familiar he might be with conditions could locate with any degree of certainty the middle of the channel of commerce as it was in 1876 prior to the cut-off.

Humphreys, Page 260.
Green, 387.
Also map exhibited at Page 510.
McSpadden, 399-400.

V

Because the boundary line reported by the Commissioners, except the portion between Island 37 and Arkansas, was based entirely on what is known as the Suter Reconnaissance Map of 1874, and an attempt to locate and delineate the middle of the main channel of commerce, as it existed immediately prior to the cut-off in 1876, as same is indicated only in a general way on said Reconnaissance map. (Commissioners' Report, Page 2, admission of Commissioners that if they had not laid out the Suter line "We have proceeded on an entirely wrong theory.")

Record, Page 370.

(a) There was no way by which the so-called Suter line could be located with any reasonable certainty. The map was not an actual survey. The channel of the river, indicated in a general way, was not tied to any fixed point on land.

(b) The Suter map had no lines of latitude or longitude, no Government section lines, or land grant lines. There were no actual measurements made of the distance from any part of the channel of the river to any fixed point; it did not purport to be a survey at all. There were, therefore, no means by which this line indicated in a general way as the channel of commerce of the river could be located with reasonable certainty.

(c) The Commission itself admitted that Suter's map was inaccurate as to the channel of commerce, as indicated by said map, being on the West side of Island 39. The Commission decided the channel of commerce of 1876 was on the East side of Island 39 instead of on the West side, as indicated on the Suter map.

(d) The Commission also admitted that the Suter map was no guide through that part of the river which formerly ran between Island 37 and Arkansas. (Report, Page 2).

In view of the character of the Suter map, as stated by its author (Pages 163-164), that the "examination was not made with any idea of determining actually anything by metes and bounds"; that no actual measurements were taken, the distances were merely estimated; that "the methods followed were somewhat crude," and in view of the admitted inaccuracies of said map in particulars stated by the Commission, and in view of the impossibility of locating and retracing a line, whch was not the result of any survey which tied it to any fixed definite

point, defendant excepts to the action of the Commission in holding that such a map, while only relatively correct in a general way, was sufficient legal evidence to enable it to establish with reasonable certainty the boundary between two sovereign states.

Instead of so doing, the Commission, after holding this map was the best evidence it had of the main channel of commerce of 1876, should have reported that it was impossible to locate the middle of the main channel of commerce with reasonable certainty.

VI

Defendant excepts to the finding of the Commission that the line of navigation as shown on the Suter map is supported by the testimony of pilots, and others familiar with the river at that time, and that the main channel of commerce of 1876 through that part of the river running between Island 37 and the Arkansas shore, as to which the Commission states the Suter map was no guide, was established from the testimony of steamboat men and residents of that section, and the physical evidences to be observed on the ground.

(a) Only a few pilots testified. Some of these had not run a boat on the river prior to 1876, and knew practically nothing of the river until after the cut-off. (Pages 52, 56, 207, 212). Some testified that the dotted line on the Suter map looked like the steamboat channel, but in several instances pointed out wherein the Suter line was, in their

opinion, incorrect; that boats seldom went close in to the bank of a bend, that they take advantage of the current; they usually go in the middle of the river.

Davis, pp. 48, 49.
Patton, pp. 62, 207.

That the Suter line as to how boats ran from Pecan Point was not correct.

Osborn, p. 60.

Further, that Suter's line, indicating main channel on the right of Island 39 going down was incorrect.

Patton, p. 62.

The testimony of two or three pilots who ran a boat prior to 1876 was of too vague and indefinite a nature on which to establish the middle of the main channel of commerce. Their knowledge was of the most general nature, and they never located the channel by actual measurements. They were concerned merely with being in water of sufficient depth to navigate safely. Lead lines used on steamboats for soundings were only long enough to measure distance up to 24 feet. Comparing the Suter map with Chart No. 18, Exhibit "E", it will be noted that the former map contains no soundings, the dotted line thereon purporting to indicate the channel of the river was never located with reference to fixed points on the banks. It could not be retraced with any degree of accuracy, and no pilot could, by merely looking at that map, state with reasonable certainty that the dotted lines repre-

sented the middle of the main channel of commerce in 1876.

VII

This defendant excepts to the finding of the Commission that at the foot of Brandywine the Suter map "shows a line on each side of Island 39", and that the Commission adopted the line on the East for the reason that it reached the conclusion that Island 39 was included in the public surveys of Arkansas. The finding that the Suter map showed a line indicating the channel of commerce on each side of Island 39 is wholly incorrect, as there is only one dotted line indicating the channel of commerce, and that is on the West side of Island 39.

See Exhibit "D" to the report, also Suter map Exhibit to the original bill.

If the Suter map correctly indicated the channel of commerce of 76, then Island 39 was, and is, in Tennessee. If incorrect in this particular, this demonstrates that it would not be safe to rely upon it as establishing the middle of the main channel of commerce of 76 at other points, even if such dotted line, which was not located by any survey, nor tied to any fixed point on the river bank, could now be retraced after the complete transformation of physical conditions during a period of nearly fifty years.

Moreover, the finding by the Commission that the Suter map showed a line indicating a channel of commerce on either side of Island 39, and that by adopting either one, it would be supported in its conclusion by the Suter map, is unwarranted.

The Commission, though accepting the Suter line as being absolutely accurate East of Centennial Island, in effect, repudiated the Suter map as to the line around Brandywine, and placed in the State of Arkansas an Island which the Suter line indicated was in the State of Tennessee.

The purpose of the Suter Reconnaissance, and the nature of the map made by men who were simply making an examination to find where river improvements were needed, and who stood upon the deck of a steamboat, and made observations without using any surveyor's instruments, or actually measuring any distances in this territory, or locating any lines with reference to fixed monuments, having been clearly shown to the Commission, and the unreliability of said map for the purpose at hand having been demonstrated, and the Commission having conceded that this map was the best evidence it had as to where the middle of the channel of commerce was in 76, and that this map did not in some particulars accurately locate it, the Commission could not, in addition, accurately retrace and relocate same in the absence of any actual measurements, which would definitely locate the said Suter line with reference to any fixed known points on land, and should have reported that there was no adequate evidence before it to enable it to ascertain and delineate the middle of the channel of commerce immediately prior to the cut-off. This defendant excepts to its action in failing so to do.

VIII

Because a portion of the said boundary line located by the Commission, to-wit: Line East of the

present short line of Centennial Island between the meridians of longitude 90 degrees and 4 minutes, and 90 degrees and 5 minutes (Exhibit "B" to report), which the Commission found to be the main channel of commerce just prior to the cut-off, runs through land that was in actual cultivation as a farm at the time of the avulsion, as is overwhelmingly shown by the documentary proof and testimony of witnesses. Defendant excepts to the location by the Commission of this portion of the line as constituting the middle of the main channel of commerce of 1876.

(a) This portion of the Commission's boundary line conflicts with the decree of this Court that it should be located along that portion of the bed of said river which was left dry as a result of the avulsion "according to the middle of the main navigable channel, as it existed at the time the current ceased to flow therein, as the result of said avulsion."

(Interlocutory decree, Par. 3).

IX

Because a portion of said line runs through the John Trigg farm of about thirteen hundred (1300) acres, which was in cultivation at the time of avulsion, the location of the Huddleston two thousand (2,000) acre tract is shown on Humphrey's map, pp. 50, 51, Original Record, Map of J. A. Green, Exhibit No. 10. The east fifteen hundred (1500) acres of this land was conveyed by Huddleston to John Trigg, who, in 1862, conveyed the west five hundred (500) acres of his fifteen hundred (1500) acres to

his daughter, Lucy Jane Stockley, and in his will he likewise devised said tract of five hundred (500) acres to his said daughter (Record pp. 414, 416, 430). This left one thousand (1,000) acres of the John Trigg tract, which was the east one thousand (1,000) acres of the Huddleston tract, which east one thousand (1,000) acres was devised by him to his son W. W. Trigg (Record p. 416). Said one thousand (1,000) acres bordered on the northeast side, a distance of thirty-five (35) chains, on the Mississippi river. The Bateman tract of one hundred and fifty-five (155) acres being immediately east of the Trigg tract, and between it and the river, and said Trigg tract was bordered on the north by McKenzie Chute.

(a) That there were added on the north and northeast of this tract, bordering on the McKenzie Chute, by accretions two hundred (200) to three hundred (300) acres, so at the time of the avulsion it contained around thirteen hundred (1300) acres. That there were accretions on the north and northeast, is shown by the Suter map, Exhibit "D", and by Government Survey, Exhibit "E", Sheet No. 7, by the Burke Map, and by the testimony of numerous witnesses familiar with the said tract at the time of the cut-off, and many of whom saw the cut-off. Their testimony that there were accretions to the north of the one thousand (1,000) acre tract, and that there were twelve hundred (1200) to thirteen hundred (1300) acres in this tract at the time of the cut-off was not, and could not be successfully controverted.

Edmonds, pp. 209, 210.
Patton, p. 206.
O. K. Jopling, pp. 273, 275, 279, 299.
H. W. Stockley, p. 300.
C. A. Stockley, pp. 304, 306.
Massie, pp. 318, 322.
McSpadden, pp. 216, 217, 220, 221, 390, 391, 392, 394.
J. A. Green, pp. 385, 389.
Mrs. Narcissa Trigg, pp. 407, 409.

(b) The will of John Trigg, made in 1861, Item 17, devising the remainder of his tract to his son, W. W. Trigg, describes it as his plantation in Tipton County, Tennessee, "containing thirteen hundred (1300) acres, more or less."
(Record, p. 416).

(c) The Burke Map, Exhibit "A" to Lottie Burke's evidence, and the Government Survey, Exhibit "E", Sheet No. 7, both show that the cut-off was right through the Trigg tract in a northwesterly direction.

(d) Burke's map shows that in 1877, as a result of the cut-off, three hundred and five and 75/100 (305.75) acres of the Trigg Tract were left on the island, and thirty-three and 75/100 (33.75) acres on the mainland; these tracts were about a mile apart. (Burke's map, Exhibit "A.") (Testimony, Record, p. 197.) Burke reported to the Chancery Court, when he filed his said map, that out of the Trigg tract "the Centennial cut-off has placed nearly one thousand (1,000) acres under the bed of the Missis-

sippi River," and has left the tract of 305.75 acres on the mainland, and 33.75 acres on the island, by actual survey. These decrees further recite that these portions so left are a part of "a certain tract of about 1,300 acres." (Record, pp. 387, 418, 423.) There were deeds made during the same period containing recitals based on the report of Burke that nearly 1,000 acres of the Trigg Tract had been placed in the river by the cut-off, leaving two tracts, one on each side of the cut-off, a mile apart, aggregating 339.50 acres, showing that at the time of the cut-off there were around 1,300 acres in the Trigg Tract, and that there could not have been any appreciable caving on the northeast portion of the tract bounding on the river, which, from its very nature, was not a caving bank. (Record, pp. 420, 426.) There was much testimony to the same effect. (Record, pp. 197, 209, 216, 220, 222, 299, 300, 357, 390, 392, 394.)

(e) When the boundary line east of the present shore line of Centennial Island, shown on Exhibit "B" to the report as being about midway between meridians of longitude 90 degrees 04 and 90 degrees 05 is transferred to other maps which correctly locate the said Trigg Tract, and contain meridians of longitude and parallels of latitude, as well as Government section lines, and land grant lines, it conclusively appears that the east boundary line of the Trigg Tract is about midway between meridians of longitude 90 degrees 03 and 90 degrees 04, and that the state boundary line as located by the Commission is, therefore, approximately a mile west of the

east line of the Trigg Tract, and runs directly through the portion of said tract which was in cultivation at the time of the avulsion. (See Green's map, Exhibit "10," p. 510.) (Also, Sheet No. 7, Exhibit "A," testimony of C. J. Bentley, not yet filed, but which the Commission has been requested to file. Referred to and identified at pp. 372, 374.)

(f) The Bateman Tract of 155 acres, lying between the east line of the Trigg Tract and the river, is shown by eye-witnesses and others familiar with the tract and the cut-off, to have gone into the river at that time. (Record, pp. 220, 271, 300.)

X

Because that portion of the boundary line as located by the Commissioners east of Centennial Island and Island 37 is much further west than was the middle of the main channel of commerce in 1876 at the time of the avulsion, that it puts into the State of Arkansas a large quantity of land which was east of said main channel of commerce at the time of the cut-off, and, therefore, within the bounds of the State of Tennessee.

(a) The 131-acre tract involved in the case of Stockley v. Cissna (119th Federal, pp. 812, 823), and Stockley v. Cissna (119th Tenn., pp. 135, 172, 174), is shown by the Humphreys map exhibited with the answer of the defendant (p. 51, Original Record), and the same maps embodied in the reports of the cases above referred to (119th Fed., p. 18, and 119th Tenn., p. 155), to have been located in the

northeast part of the Trigg Tract, a portion of same being accretions, and on substantially the same testimony that was before the Commissioners, the U. S. District Court at Memphis and the Circuit Court of Appeals, in an opinion delivered by former Judge Lurton, afterwards an honored Justice of this Honorable Court, decided that "there was evidence quite satisfactorily establishing the fact that this parcel, while owned by John Trigg, the second grantee in the line of title, was rapidly washed away by the sudden change in the course of the river in 1876" (119th Fed., p. 823), and a similar finding of fact was made by the Supreme Court of Tennessee on substantially the same evidence that "it is shown that by the cut-off about one thousand acres of the land, including the 131-acre tract, was washed away." Further, "it appears that about one thousand acres of the Huddleston tract, and parts of other tracts belonging to adjacent proprietors, was swept away as the result of the avulsion of the river." (119th Tenn., 154, 172, 174.)

(b) The tract of 305.75 acres within red lines on the Humphreys map, exhibited with the answer of the defendant at page 51 of the Original Record, involved in the same case, was declared by Judge Lurton, on the principle adopted by this Court, that the boundary line between Arkansas and Tennessee is the middle of the main channel of commerce as it existed prior to the cut-off, to be "within the boundary of the State of Tennessee." (119th Fed., p. 823, 119th Tenn., p. 162.) These findings of fact by such eminent authorities are strong evidence of

the inaccuracy of the conclusion of the Commissioners on substantially the same evidence.

XI

The defendant excepts to said portion of the boundary so located by the Commission as being absolutely wrong, because it is too far west, and insists that this portion of the boundary must have been east of the east line of the Trigg Tract, where the middle of the main channel of commerce was immediately prior to the cut-off.

See also Exhibit "E," being Chart No. 18, Government Survey, on which the Commission drew a red line which it stated during hearing of proof was the tentative boundary line, but which it is agreed was the line that had been completed in September, 1920, shown on Exhibit "B" to report. The testimony of witnesses familiar with the Trigg Tract shows that this line ran through the middle of the said tract, and a portion thereof was in cultivation at the time of the avulsion. (Record, pp. 209, 222, 385, 388, 390.)

XII

Defendant excepts to the finding of the Commission that the Burke map, Exhibit "A," shows conclusively lines of the Trigg Tract both eight years before the cut-off and nineteen (19) months after, and that this map disproves the theory that there had been no considerable erosions on the north and east of the Trigg Tract, and at the time of the cut-off it contained about thirteen hundred acres, and,

further, that said map shows that as far back as 1868 this tract contained by actual survey only 934.21 acres, and there was active caving along the entire front for eight years before the cut-off, which reduced this area very materially, and, further, that said map disproves a large volume of testimony as to the distance of the northeast line of the Trigg Tract as it was just before the cut-off from the east end of Centennial Island and as it was immediately after the cut-off. Exceptor insists that this finding is unwarranted. (See Report, p. 6.)

(a) Civil Engineer Burke was called upon in the Chancery Court of Shelby County merely to survey and ascertain the boundary and acreage of the portions of the Trigg Tract which were left after the cut-off and in existence in 1877, with a view of making sales thereof in said Court. His map was prepared solely for the purpose of showing the location and boundaries of said tracts and the channel of the river, which had cut through the Trigg Tract in 1876; that he was not attempting to locate any other lines with accuracy on said map, which had no latitude or longitude, or sectional lines thereon, is shown by the fact that he placed Island 37 west, instead of north, of this tract. Commissioner Bailey changed the same on Exhibit "D" in this particular, and also placed on said original Burke map what he called the boundary of the Trigg Tract in 1823; also the alleged Arkansas-Tennessee boundary line, without indicating how these could be accurately superimposed on such a map. The red line indicating the supposed river boundary of 1868 was

placed there by Burke, but there is nothing to show that it was intended to be located with accuracy with reference to the portions of the Trigg Tract which he was surveying in 1877. His map must be taken in connection with his report to the Chancery Court accompanying same, which is declared in several decrees of said Court to recite that one thousand acres of said Trigg Tract went into the river at the time of the avulsion. (Record, pp. 387, 418, 426.)

(b) The said Burke map, in connection with his said report which accompanied the map, in the Chancery Court, shows that at the time of the avulsion there were at least thirteen hundred acres in the Trigg Tract, and support, rather than contradict, the testimony of witnesses familiar with the tract to this effect. The map and said report accompanying same show that the river cut through the middle portion of said tract, making a cut-off about a mile wide, which necessarily took away, as reported by Burke to the Chancery Court, nearly one thousand acres, leaving on the mainland 33.75 acres and on the other side of the cut-off on the island 305.75 acres. (See, also, sheet No. 7, Government Survey, Exhibit "E," which shows that the cut-off went through the Trigg Tract, as shown by the Burke map, and Exhibit "A" to testimony of C. J. Bentley to be filed by the Commission.)

(c) There is nothing on the Burke map to indicate when the portion of the Trigg Tract between the river boundary of 1868 and the east line of tracts remaining in 1877 disappeared, but his report to the

Court accompanying said map conclusively shows that about one thousand acres of the tract went into the river at the time of the cut-off, which would leave no basis for the theory that the eastern bank of the Trigg Tract had caved gradually between 1868 and 1877. His figures, which the Commission claims show 934.21 acres in said tract in 1868, clearly refer to the boundaries of the original one thousand-acre tract, according to muniments of title, without taking into consideration the accretions (Record, pp. 418, 423), which increased the tract to around thirteen hundred acres, as shown by the testimony of all of the witnesses familiar with same at the time of the avulsion, and by his own report to the Chancery Court that nearly one thousand acres went into the river at the time of the cut-off, leaving, according to his survey, about three hundred and thirty-eight acres.

(d) From the nature of the northeast boundary of the Trigg Tract there could not have been, and, according to the testimony of the witnesses, there was no appreciable caving prior to the cut-off. The Suter map showed accretions north of said tract. When the river suddenly cut its way through the Trigg Tract large volumes of water which previously thereto had gone into Chute 37 and around Island 37 was rapidly drawn into the cut-off. The velocity, being greatly increased in the effort of said water to reach the main body of the river through the shortest distance, as a result of the cut-off, had the effect of cutting away the northeast and eastern boundary of the Trigg Tract. This is the only rea-

sonable conclusion to be drawn from the Burke map and his report to the Chancery Court accompanying same. It is also in harmony with the testimony of eye-witnesses that the river, before the cut-off, was at least a mile east of the present east line of Centennial Island. (Record, pp. 196, 197, 209, 211, 216, 222, 299, 300, 306.) Moreover, the finding of fact by the U. S. Circuit Court of Appeals and the Supreme Court of Tennessee that the 131-acre tract in the northeast part of the Trigg Tract was a part of the one thousand acres which were washed into the river at the time of the cut-off, supports defendant's construction of the Burke map in connection with his report accompanying same, and the testimony of numerous witnesses that said Trigg tract did contain around thirteen hundred acres at the time of the cut-off. Therefore, defendant excepts to the findings and conclusions of the Commission as to the import of the Burke map as set out on page 6 of the report. If this finding and conclusion are erroneous, then, unquestionably, the boundary line as located by the Commission East of Centennial Island is inaccurate, because, instead of representing the middle of the main channel of commerce of the river as it flowed immediately prior to the cut-off, it represents a line running through farm lands in existence at the time, and sustains the contention of this Exceptor that there was no adequate evidence before the Commission to enable it to establish and delineate with reasonable certainty the middle of the main channel of commerce in 1876 prior to the cut-off.

XII

This defendant excepts to the finding and conclusion of the Commission that "there could have been no caving along the east end of Centennial Island during the process of the cut-off, or the period of readjustment. Physical conditions were against it." And, further, that in their opinion, "the present shore line at the east end of Centennial Island, except the south one-quarter mile, was assumed prior to the cut-off." There is not only no evidence to warrant such a finding and conclusion, but, on the other hand, it is refuted and overcome by:

(a) The Suter map, the Government Survey, Sheet No. 7, Exhibit "E", showing the nature of the bank at the northeast boundary of the Trigg tract, and accretions on the northern boundary of same. This was a convex, not a concave, bank, and the erosions in the Tennessee side were principally in the concave bank south of Deans Island. That when the river cut through the Trigg Tract at the narrowest point, then the volume of water, which had previously flowed around Island 37, and mainly through Chute 37, was drawn to the cut-off at quite a greatly increased velocity, which had the effect of causing the eastern boundary of Centennial Island to cave, both at the time of the cut-off, and during the process of readjustment.

Such a radical change in the course of the river as that caused by the Centennial cut-off affected the regimen of the stream for quite a distance both above and below the cut-off, the effect on the regi-

men of the stream being very much more marked and radical in the immediate vicinity of the cut-off than it was some distance above and below. In the immediate vicinity of the cut-off there was a violent disturbance of the regimen of the river which increased to a very marked degree the velocity of the river current and caused violent eddies and swirls. This disturbance in the river in all probability caused very rapid caving of the river bank along the stretch affected, and the caving no doubt continued to a more or less degree during the period of readjustment. The rate of caving cannot be determined owing to the lack of surveys immediately before and after the cut-off.

The shore lines of 1868 on the Burke map, even if intended to be accurately located with reference to the east line of the portions of the Trigg Tract which he surveyed in '77, indicate that a considerable recession of the bank lines along the east side of Centennial cut-off took place before 1868 and '77, but not when this recession occurred for the map in itself does not show whether it occurred at a uniform rate per year, or whether it occurred at the time of and immediately after the cut-off. However, the reasonable conclusion is that the greater part of the caving occurred immediately after the cut-off and during the period of readjustment, because of the violent change in river conditions in the immediate vicinity and the consequent marked increase in current velocities and other disturbances thereby produced.

(b) By the report of Burke and decrees and deeds based thereon in the Chancery Court of Shelby

County, Tennessee, that one thousand acres of the Trigg Tract were washed into the river at the time of the cut-off, which went through the middle of said tract for a width of about a mile, leaving a small tract on the main land, and another tract on the island. These one thousand acres so washed into the river necessarily extended to the eastern boundary of said original one thousand acre tract, which, with the accretions on the north and northeast, aggregated about thirteen hundred acres.

(c) By the findings of fact of the District Court of the United States, U. S. Circuit Court of Appeals, and the Supreme Court of Tennessee, that the one hundred and thirty-one acre tract in the Northeast portion of the Trigg Tract was a part of the one thousand acres which went into the river at the time of the cut-off.

(d) By the testimony that the Bateman Tract immediately east of the Trigg Tract was in existence and went into the river at the time of the cut-off.

(e) By the testimony of witnesses that the present east shore line of Centennial Island is at least a mile from the river as it ran just prior to the cut-off, and that from twelve hundred to thirteen hundred acres of the Trigg Tract were in existence at the time of the cut-off, and that there had been no caving east and northeast of the Trigg Tract until the river suddenly cut through said tract and immediately made a channel which caused the caving and breaking away of the eastern boundary of Centennial Island, which continued during the process of readjustment until the east line of Centennial Island

corresponded with the east shore line of a portion of the Trigg Tract of 305.75 acres left on said Island, as shown by the Burke map, and his report to the Chancery Court of Shelby County.

(f) By the testimony of witnesses that the east bank of Centennial Island is not now the bank of the river as it was prior to the cut-off. That the river was much further east. (Record pp. 299, 300, 306).

(g) Defendant insists that this finding and conclusion of the Commission that the present east shore line of Centennial Island was assumed prior to the cut-off is not supported by the evidence adduced and, being an erroneous finding, the boundary line that was established in harmony with such a conclusion should be disregarded on the ground that there is no adequate evidence to justify the location of such a line with reasonable certainty.

XIII

Defendant excepts to that portion of the boundary line between AA and AA1 extending from station 32 to station 33 between parallels of latitude 36 deg. 24 min. and 36 deg. 25 min., indicated on map, Exhibit "B", on the ground that said line admittedly runs over what was dry land at the time of the avulsion, and is, therefore, contrary to the decree of reference, Par. 3, requiring said line at all points to be located according to the middle of the main navigable channel as it existed at the time the current ceased to flow therein as a result of the avulsion.

The reason given on page three of the report for establishing this line as a part of the boundary line between the states is contrary to the decree of this Court.

(See Burke map, p. 509, Record.)
(See Exhibit "E", Sheet No. 7.)

XIV

Defendant excepts to the action of the Chairman of the Commission in placing on the Burke map a yellow line which purports to represent the 1823 east boundary of the Trigg Tract, and a line purporting to represent the Arkansas-Tennessee boundary, because it changes the original Burke map as exhibited, and is not authorized, and the Commission does not indicate in any manner how these lines could be accurately placed on the Burke map which contains no meridians of longitude or parallels of latitude, and the said lines so placed on the map by the said Chairman of the Commission are not only misleading but inaccurate.

XV

Because before the middle of the main channel of commerce of 1876, just immediately prior to the cut-off, could be located with any degree of accuracy, it was necessary to be able to ascertain and establish with reasonable certainty where the channel itself was located and what was the width of this channel. Not even the channel itself as it existed just prior to the cut-off could be located with reasonable certainty in 1920, or even as far back as 1901.

(a) Major J. H. Humphreys, who was more familiar with locus in quo than anyone else, and who made surveys in 1901, testified that he could not in that year undertake to locate the channel as it existed in 1876, prior to the cut-off. (Record p. 260). In this he is supported by Surveyor and Abstracter, J. A. Green, who is thoroughly familiar with the physical conditions and testified that it was not possible for any surveyor, even with a knowledge of prior conditions, to locate the channel of commerce of 1876 prior to the cut-off. Others testified to substantially the same thing, and that the middle of the channel of commerce changes in different seasons. (Record p. 387, 397, 400).

(b) Major Humphreys further testified that the banks of the river of 1876 are now a mere matter of conjecture, and that what might be taken for banks of the river are mere ridges and there was no evidence as far back as 1901 to enable anyone to say that these ridges were river banks. (Record Book, pp. 256, 262). His testimony and that of others, were in harmony with the finding of fact of the Supreme Court of Tennessee on this point, as follows:

> "There is also testimony of several witnesses tending to show that there is an elevation along the old river channel, considerably west of the original Dean's Island bank, which they took to be and called the bank of 1876. This is mere speculation upon the part of these witnesses. They did not reside in the neighborhood previous to 1876, and they know nothing of the condition of things as they then existed. The witnesses examined in the case, old men who have

lived in the neighborhood all their lives, and are familiar with the country and with the effects of freshets in the Mississippi river, say that there is no such bank; that what the defendants' witnesses took for banks are mere ridges or banks thrown up by the action of the water of the river during freshets, when the old bed was flooded, and the depressions near those banks mere channels that were washed out on such occasions."

(119 Tenn. 121.)

XVI

Because there is not in the record accompanying the report of the Commissioners sufficient evidence to locate with reasonable certainty the main channel of navigation of the river between the points indicated in the decree of this Court, and the line established by the Commissioners in the absence of any actual surveys to guide them is the result of an undertaking to estimate where the main channel of commerce was in 1876 without having any sufficiently definite data on which to establish such a line with reasonable certainty, and the Commission should have so reported, and this defendant excepts to its action in attempting to relocate a line which itself was never definitely located by any survey, without having the benefit of data sufficiently definite and authentic in its character to enable the Commission to ascertain and delineate with reasonable certainty the steamboat channel of the river as it existed in 1876 immediately prior to the cut-off, which was made by this Court the basis of the location of said boundary.

XVII

Because, by reason of its location, the said line so established by the Commissioners on the map, Exhibit "B," could not possibly have been the middle of the channel of commerce at several points at the date of the avulsion.

XVIII

Because the findings and conclusions of the Commission set out in said report as to the boundary line are not in accordance with the decision of this Court and the decree of reference.

XIX

Because there was a plain disregard of the decree of this Court in this, that the boundary line in certain portions thereof was admittedly not located along the middle of the main channel of commerce, but on and over land in existence at the time of the avulsion. (Record, p. 3.)

XX

Because the Commissioners, after the alleged boundary line, as shown on Exhibit "B," had been completely surveyed, admitted that "if the Suter line is not the line, then we have proceeded on an entirely wrong theory." (Record, p. 370.) And it appears clearly from the record that the Suter reconnaissance map does not even purport to locate with accuracy the middle of the main channel of

commerce as it existed in 1874, and that the only map prior to the avulsion which did accurately portray and survey the channel of commerce and tie it to fixed monuments both on the Arkansas and Tennessee sides, showing the width of said channel, is what is known as the Humphreys Map of 1823, and any conclusion as to where the middle of the main channel of commerce was in 1874, as shown by the Suter map, could not possibly be justified by the map itself and was necessarily a matter of mere conjecture, and the attempt to relocate a line which itself had not been accurately located would involve guesswork and speculation such as should not be the basis for establishing the boundary line between two states. If such were done, no one could possibly tell with any reasonable certainty how much land, that was really Tennessee according to the main channel of commerce as it existed in 1876, and as it flowed just prior to the cut-off, would be placed in Arkansas, and how much, on the same principle, would be taken from Arkansas and placed in Tennessee.

XXI

For divers other grounds to be assigned at the hearing.

WHEREFORE, Exceptor, the State of Tennessee, excepts to the said report, the actions, findings and conclusions of said Commissioners, and respectfully submits that the same should not be confirmed;

That they be required to introduce in this Court, with their report, all maps listed as Exhibits 1 to

22, pages 4 and 5 of the report, which were not filed with the same;

And that this Honorable Court vouchsafe to this Exceptor, the State of Tennessee, the right to file additional exceptions after said maps shall have been filed, printed and made a part of the record; and, also, that the Exceptor be granted the right to file a brief and to be heard in support of the exceptions now filed and such supplemental exceptions as Exceptor may see fit to file after the said maps shall have been made a part of the record.

All of which is respectfully submitted.

FRANK M. THOMPSON,
Attorney General of Tennessee.

G. T. FITZHUGH,
Counsel.

ADDENDUM

Since the preparation of the foregoing exceptions the Commission has notified Counsel for both parties that, in accordance with their request, the twenty-two maps referred to on pages 4 and 5 of the report have been forwarded to the Clerk of the Supreme Court of the United States. After same shall have been printed and made a part of the record, Exceptor respectfully requests that it be vouchsafed the right to file additional exceptions based on and supported by the said maps.

Respectfully,

FRANK M. THOMPSON,
Attorney General of Tennessee.

G. T. FITZHUGH,
Counsel.

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IN THE

Supreme Court of the United States

OCTOBER TERM, 1923

THE STATE OF ARKANSAS,
Complainant,

vs. No. 2, Original

THE STATE OF TENNESSEE,
Defendant.

BRIEF AND ARGUMENT ON BEHALF OF THE STATE OF TENNESSEE IN SUPPORT OF ITS EXCEPTIONS TO THE REPORT OF THE BOUNDARY COMMISSION.

FRANK M. THOMPSON,
Attorney General of Tennessee.

G. T. FITZHUGH,
Counsel.

TODD-MEMPHIS

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IN THE

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BRIEF AND ARGUMENT ON BEHALF OF THE STATE OF TENNESSEE IN SUPPORT OF ITS EXCEPTIONS TO THE REPORT OF THE BOUNDARY COMMISSION.

In the exceptions filed by the defendant, the State of Tennessee, to the report of the Commissioners it expressly reserved the right, subject to the approval of the Court, to file a brief and argument in support of said exceptions, and also to file such supplemental exceptions as it might deem necessary after certain maps, which were exhibits to the testimony and deemed essential to a clear understanding of the testimony to which they were exhibits, should be sent up by the Commission as a part of the record and printed (Exceptions of Defendant,

pp. 31 and 32). After the defendant received the printed report of the Commission and the exhibits thereto it learned for the first time (not having been furnished with a copy of the report until the same was printed), that twenty-two maps, as set out on pages 4 and 5 of the report, although exhibits to the testimony and considered by the Commission had not been sent up as a part of the record for the reason, as stated by the Commission in its report, that said maps were secured from the records of the Supreme Court of Tennessee. Defendant's counsel, before preparing exceptions to the report of the Commissioners, addressed a communication to the Commission requesting that said maps be filed at once with the Clerk of the Supreme Court of the United States as a part of the proceedings, and insisting that the fact that the said maps had once been used in a case before the Supreme Court of Tennessee, to which the State of Tennessee was a party, was no reason why the said maps, which were exhibits to testimony before the Commission, should not be filed, as the said maps had been in the possession of the Commission since its appointment in 1918.

A copy of this communication was sent to the counsel for the State of Arkansas who immediately wrote the Commission that the position of defendant's counsel was correct, and that said maps should be filed. Accordingly, the Commission made a supplemental report and with it transmitted said maps to the Clerk of this Honorable Court. The defendant requested the State of Arkansas to bear

its share of the cost of printing said supplemental report and of reproducing said maps as a part of the record, but it refused to do so, stating that it did not care to have said supplemental report, or any of the maps accompanying same, printed. Thereupon, the State of Tennessee designated the maps that it desired to have printed and furnished the entire amount of the cost of printing the said designated maps and said supplemental report of the Commission.

The defendant, in its Exception No. 3, took the position that the report of the Commission should not be considered until these maps were filed and printed as a part of the record for the reason that many of them were essential to a correct understanding of the testimony to which they had been filed as exhibits. This exception, of course, need not now be considered.

I.

It is respectfully insisted by the defendant that the boundary line, as shown on Exhibit "B" to the report (Rec. p. 505), was established by the Commission before a single witness for the defendant had been heard and before the defendant had cross-examined any witness offered on behalf of the State of Arkansas. The record indisputably shows that the surveying of this line was begun on July 26th, 1920, and completed in September, 1920 (Report, p. 1; Exhibit "B," p. 505). That only one hearing, to-wit: on July 15th, 1920, had been held prior to the completion of the survey of the line which was

adopted by the Commission as the boundary line between the two states within the limits fixed by the decree of this Honorable Court. Paragraph 6 of the Interlocutory Decree of Reference is as follows:

> "6. Before entering upon the discharge of their duties, each of said commissioners shall be duly sworn to perform faithfully, impartially, and without prejudice or bias the duties herein imposed; said oaths to be taken before the Clerk of this court, or before the Clerk of any District Court of the United States, or before an officer authorized by law to administer an oath in the State of Arkansas or of Tennessee, and return with their report; that said Commission is authorized and empowered to make examination of the territory in question, and to adopt all ordinary and legitimate methods in the ascertainment of the true location of said boundary line; to summon witnesses and take evidence under oath; to compel the attendance of witnesses and require them to testify; to call for and require the production of papers and other documentary evidence; such evidence, however, to be taken upon notice to the parties, with permission to attend by counsel and cross-examine the witnesses; and all evidence taken and all exceptions thereto and rulings thereon shall be preserved and certified and returned with the report of said commissioners; and said commissioners are also at liberty to refer to and consult the printed record in the cause and the opinion of this

court delivered on March 4, 1918, and to do all other matters necessary to enable them to discharge their duties and attain the end to be accomplished conformably to this decree."

(247 U. S. 461, Arkansas v. Tennessee).

The defendant submits that the evidence introduced after the Commission had completed the line which it declared to be the middle of the channel of commerce as it existed at the time of the cut-off shows that the location of the middle of the channel of commerce as it existed immediately prior to the avulsion of 1876 was practically impossible (Rec. pp. 196 to 504). All of the testimony embraced in the printed record between pages 196 to 504, inclusive, was introduced after the Commission had completed the line recommended by it as the middle of the channel of commerce, notwithstanding the proof subsequently introduced showed the entire channel of the river as it existed at the time of the cut-off had not only been filled up but was overgrown with large trees, and that no actual survey of said river or channel of said river so as to fix the same by metes and bounds had been made since that shown by the Humphreys Map of 1823, conceded by all to be correct.

That the Commission at the outset entertained the idea, which the defendant respectfully submits was erroneous, that the line which is known as the Suter Reconnoissance Map of 1874 represented the middle of the channel of commerce between Island

37 and Dean's Island and, although said line had never been surveyed and was not tied to any fixed point, and the map containing same had no parallels of latitude or meridians of longitude, that said line could be located, nevertheless, after the lapse of nearly fifty years, the entire topography of the territory having completely changed. Plaintiff's counsel insists that Exhibit "B" was merely a *primary* survey, and that after a vast amount of proof was taken the line was then run by "courses and distances" as set out in Exhibit "A"; and, further, that "the survey, that is, Exhibit B, does not undertake to fix any line whatever. It is a complete engineering picture of the *locus in quo* and after the completion of this survey, proof was taken and proceedings had which finally resulted in the running of the line by the Commission." (Plaintiff's Brief, p. 5). We submit that the Commission did not have the same understanding of Exhibit "B" as plaintiff's counsel seems to have. From the report of the Commission, page 1, we quote:

> "On the 26th day of July, 1920, we again took a survey party to the field and conducted the preliminary work and the survey of the line herein recommended, which is by courses and distances as set out in Exhibit 'A,' and shown on map, Exhibit 'B.'"

Moreover, Exhibit "B" itself (Rec. p. 505), is declared over the signatures of the Commissioners to represent "The Arkansas-Tennessee boundary line from the upper end of Centennial Cut-off to the

lower end of Brandywine Island as located by the Arkansas-Tennessee Boundary Commission," and this line has marked on it all the courses and distances, and at the bottom of the map are these words: "Survey completed September, 1920" (Rec. p. 505). If this Exhibit "B" does not undertake to fix the boundary line, notwithstanding it so purports on its face and shows the line with the courses and distances marked thereon as the boundary line between the states in the territory affected by the avulsion, then counsel for the defendant confesses to have entirely misunderstood and misinterpreted said Exhibit "B," and the report of the Commission, as well as the testimony relating to said line. During the hearing this same line, traced in red on Mississippi River Chart No. 18 (Rec. p. 511), was the subject of inquiry, and Mr. C. B. Bailey, one of the Commissioners whose testimony on behalf of W. A. Cissna, in the case of Cissna v. The State, was introduced on behalf of the State of Arkansas, on being recalled, testified as follows:

> "Q. Mr. Bailey, on Chart 18, which the Commission was kind enough to furnish me, and which is made Exhibit No. 1 to the deposition of Mr. Green, is the tentative boundary line in red? Will you tell me when that was first surveyed and located as it exists now on that Chart 18?"
>
> "A. In the summer or fall of 1920."
>
> "Q. You established it then in the summer and fall of 1920 as it is now drawn on this map?"

"A. Yes, sir."

"Q. The first evidence which was offered on behalf of the State of Tennessee, was December 1st, 1920. So this line was drawn several months before any testimony on behalf of the State of Tennessee had been heard?"

"A. If your dates are correct."

"Q. It was the intention of this Commission to establish this line before the evidence was completed?"

"A. Not at all."

"Q. Did you make this survey?"

"A. No, sir."

"Q. Who made it, who actually ran the lines?"

"A. John Wilkes was the surveyor in the field in 1920 and Mr. Newsom was the surveyor in the field in 1918."

"Q. What I asked Mr. Bailey was whether you made the survey yourself?"

"A. No, sir. The actual surveyor in the field in 1920 was John Wilkes."

"Q. He never made any report that has been put in the record?"

"A. No, sir; he furnished the Commission with his notes."

"Q. You accepted his survey?"

"A. We did."

"Q. Did you survey or Mr. Barton survey any?"

"A. No, sir."

"Q. In accepting that survey of this gentleman, did you furnish him with any proof in this case at all?"

"A. No, I don't think he was given any proof. He was given his instructions."

"Q. Who gave him instructions?"

"A. The Commission."

"Q. Which one of the Commission?"

"A. I presume all of us."

"Q. Was he put in possession of any of the evidence in this case?"

"A. Not to my knowledge."

"Q. Was he instructed to establish this line according to Suter's survey?"

"A. Yes, as given him by the Commission."

(Report, pp. 404, 405).

It further appears that the courses and distances were run at this time. The Chairman, Mr. Van Deventer, stated, "we gave him instructions as to how he should run his courses and run the distances, and Mr. Barton can explain that."

(Rec. p. 405).

It further appears that this decision as to said line and the courses and distances was reached by

the Commission in the summer or fall of 1920, and that the Commission stated that they had had access to testimony contained in the cases with the State of Tennessee. Mr. Barton stated that he did not know who gave the surveyor the points along which the survey was made as he had given no attention whatever to that. (Rec. p. 406).

That the Commission itself entertained some doubts as to whether it had accurately run the Suter line is, we submit, shown by the following:

> "Mr. Van Deventer: It seems to me (and I believe this Commission has gone on the theory) that the Suter line, indicating the thread of the main navigable channel, was substantially the line of 1876, that is, the thread of the main navigable channel fixed by the Supreme Court is substantially the thread in 1876. I expect you, gentlemen, have read the testimony of the old pilots on that subject. They all seem to agree that was substantially the line. Now that being so, it seems to me, that if we have not laid out the line correctly by the Suter line, before we make our report that ought to be shown. If you admit that—"
>
> "Mr. Fitzhugh: We don't admit it."
>
> "Mr. Van Deventer: If the Suter line is not the line, then we have proceeded on an entirely wrong theory. Now, if we have not laid out the Suter line, I would like to know it before I sign any report; but if we have laid out the Suter line and you gentlemen deny that the Suter's the line—"

"Mr. Fitzhugh: We deny the accuracy of the Suter map. It don't purport to be made according to instrument."

"Mr. Van Deventer: We understand that, but does it show approximately the old thread of the navigable channel of the river?"

"Mr. Fitzhugh: We contend it does not."

"Mr. Van Deventer: It has been shown that Col. Suter, in laying out the river bank and laying out the thread of the main navigable channel, as I recall, went up and down the river four times—made two trips going and coming—then checked up as carefully as anybody could do from that kind of reconnoissance. It seems to me this is the difficulty here before us, in preparing a preliminary report with a view to submitting to you gentlemen, to get it as accurate as possible before we sign it and file it, and that is what I want to know."

"Mr. Fitzhugh: I make this suggestion, in accordance with one heretofore made by Mr. Van Deventer, if you have any line already drawn—any tentative line—that you give counsel the benefit of it. I have never seen anything yet, except that indicated by Mr. Bailey, which runs right through the Huddleston and Trigg tract."

"Mr. Ewing: I want to make this statement: I think the thing for the Commission to do is, having heard the evidence, examined the

property and the maps, to go ahead and lay the line where the Commission thinks it ought to be, without regard to counsel's views."

"Mr. Fitzhugh: It is supposed you will run it according to the maps and the evidence."

"Mr. Van Deventer: If we can have any maps that indicate where the thread of the main navigable channel was, that is the map we ought to work by, rather than by grant line. *Now, the only map that we have had heretofore that indicated anything of that kind was Col. Suter's map.*" (Rec. p. 370).

It is said by the plaintiff's counsel in his brief that this was the individual opinion of the Chairman, Mr. Van Deventer (Brief p. 20). It will be noted that when expressing his own conviction, he stated: "I believe *this Commission has gone on the theory* that the Suter line indicating the thread of the main navigable channel, was substantially the line of 1876." The other two Commissioners were present and at least by their silence acquiesced in the statement that this was the theory of the *Commission.*

II and III.

The defendant makes no further insistence as to Exceptions II and III.

IV.

In this exception the defendant insists that the Commission should have reported that the middle

of the channel of commerce as it existed immediately prior to the cut-off could not now be located with reasonable certainty, and that the overwhelming preponderance of credible proof submitted to the Commission showed that no map since 1823 had been made which tied the channel of the river to any fixed monument. That the changes and physical conditions that had taken place during the period since the avulsion of 1876—nearly fifty years—involving the entire filling up of the old channel of the river, which had for many years been overgrown with trees of large size, making it impracticable to distinguish and delineate the bounds of the river bed itself, and especially to ascertain the middle of the channel of commerce in the absence of any actual survey which determined its location with reference to any land grant or section line or any fixed monument at any time prior to the avulsion except in the year 1823, presented insurmountable difficulties to establishing with reasonable certainty in 1920 the middle of the main navigable channel as it existed at the time of and immediately preceding the avulsion of 1876 and, therefore, the Commission should have reported in accordance with paragraph 5 of the Interlocutory Decree.

Major J. H. Humphreys, who made the actual surveys locating the channel of the river as it existed in 1823, and which is universally conceded to be the only map prior to the avulsion which establishes with certainty by metes and bounds the channel of the river, and who made further surveys in 1901, and was more familiar with this territory

than any other surveyor, stated that if he were asked to mark the middle of the river in 1876 he could not undertake to do it (Rec. p. 260). It is said by plaintiff's counsel (Brief p. 9), that Major Humphreys made it plain "that his survey of 1901 had no relation to that which this Commission was appointed to do." It is true that Major Humphreys stated that the map about which he was then being questioned, to-wit: the map made by him in 1901, was not drawn with a view to locate the middle of the river in 1876, but here was a surveyor who had repeatedly traversed the territory, who had made the actual surveys which located the channel of the river as it was known in 1823, who had made many surveys in 1901 and thereafter, who was thoroughly acquainted with the physical conditions following the avulsion, and especially in the year 1901, yet with all the maps which had been made by him, and with all the information personally acquired by actual inspection and actual surveys, he stated that if he were asked to tell where the middle of the river of 1876 was, and to delineate it on any map, he would not be able to do so. Further, with reference to his careful inspection and surveys in 1901, he testified as follows:

> "Q. Did you see any bank or elevation of ground there that would lead you to suppose that it had once been the bank of the Mississippi River?"
>
> "A. No, I did not."
>
> "Q. Did you see any difference in the growth of timber there which would show that

there was such a difference between its size and age as would lead you to conclude that it marked what had formerly been the bank of the river?"

"A. I did not."

"Q. You see here on this map of Mr. Bailey's where he has marked what he calls the Arkansas bank of the river of 1876. Did you see any bank or elevation of ground along there or difference of growth of timber along there?"

"A. I did not; there is none there. It is practically level ground. There is no difference in the growth of timber there."

(Rec. p. 250).

And further:

"Q. Quite a good deal has been said about a bank which is distinguishable from the other undulation, and which has the appearance of being an old river bank, in that river bed, and all of the land to the east of that bank is on a higher plane than the land to the west of it. Did you or not find any such land?"

"A. I did not find any ridge which seemed to me to have been the bank of the Mississippi River. On the contrary, the largest body of water I had to cross, and the deepest, was just against the Arkansas shore of the river."

"Q. And that was the outlet of Barney Chute, was it?"

"A. I think so."

"Q. These ridges, which you found, went down, or dipped on both sides, did they not, the land being low on both sides of the ridge?"

"A. There were some of them wider than others, and some of them nearly flat for a considerable width on top. Some of them would rise up from the low ground by a very easy slope, and some of them more abrupt. There is a considerable ridge between Campbell's Lake and the body of water next to the Arkansas shore."

"Q. You mean the ridge which lies east of Campbell's Lake is the only ridge which you saw that looked to you as though it might have been a permanent bank of the Mississippi River? Is that correct?"

"A. I can't say that it looked to me like it might have been the permanent bank of the Mississippi River. I think it was rather higher than any other ridge that I crossed, but I don't consider that any evidence that it was ever a bank of the river. We see a sand bar accumulate and form an island in the middle of the river." (Rec. p. 256).

* * * * * * *

"Q. How do you account for the fact that on this ridge the timber was larger than in the low, flat places between the ridges?"

"A. I have little doubt that it was due to the fact that the ridges were first above water,

and the timber begun to grow there earlier than it did at other places, which were submerged longer." (Rec. p. 257).

Mr. J. A. Green, sixty-eight years of age, another surveyor who had lived in Tipton County practically all of his life, and who had been a surveyor for forty-four years when he testified, and had made a large number of surveys of Island 37 and the surrounding territory since the avulsion of 1876, and who was thoroughly familiar with its effects and the physical conditions which subsequently developed, testified as follows:

"Q. When was the first time that you visited this territory after the cut-off?"

"A. I don't remember exactly, but it was somewhere in the eighties, I think."

"Q. I will ask you whether, even as far back as in the eighties, any surveyor could, with reasonable certainty, have located the middle of the channel of commerce of the river as it existed prior to 1876?"

"A. No, sir."

"Q. It has changed possibly every year since?"

"A. Yes, sir."

"Q. The channel of commerce changes even according to the seasons of the year—I mean the width of the river changes?"

"A. Yes."

"Q. But apart from that, I will ask you whether in your judgment, from your knowledge as a surveyor, it is now possible to locate with any reasonable degree of accuracy, the middle of the channel of commerce of the Mississippi River in this territory, as it was just prior to the cut-off in 1876?"

"A. No, sir."

(Rec. pp. 386, 387).

(Also his map exhibited at Rec. p. 510).

Mr. G. J. McSpadden, a gentleman of the highest integrity, and who had acquired a large amount of accurate information about the river and this territory both from personal inspection extending back as far as 1882 and from examination of records and his connection with litigation relating to this territory in which he had taken a vast amount of proof, testified as follows:

"By Mr. Fitzhugh: You have stated that you have gone over this *locus in quo* a great many times since 1876. I will ask you to state from your knowledge of the situation, which has been disclosed by your testimony, whether you consider it possible to locate with reasonable certainty the main channel of commerce of the Mississippi River as it existed before 1876?"

"A. No, sir; I would consider it an absolute impossibility; however, I have only been over the *locus in quo* since 1882. In the first place,

to find the middle of anything, you have got to know how wide it is, and I don't suppose the government has ever made a survey of the navigable channel of the Mississippi River at that place at any time, and certainly nobody else could afford to do it."

(Rec. pp. 399, 400).

The learned counsel for the plaintiff states that Mr. McSpadden is a much better lawyer than surveyor, and commends his opinion of the Suter map, which he says was expressed in a short quotation from his testimony, on page 11 of plaintiff's brief, where he was asked whether he thought a man on a steamboat with a steamboat reconnoissance, and having a compass, could get compass courses to those land marks? He replied that he could beyond any question. And further, "could he plat the channel from notes made of those courses?" "A. Beyond any question." (Rec. pp. 403, 404).

The learned counsel failed to notice the question and answer immediately following, to-wit:

"Q. Do you know whether Col. Suter did that?"

"A. I only know what Col. Suter says. He says he took courses and distances, and I presume he used his instrument to get the general course and direction; but I understand the point here is how you tie to an Arkansas section corner or a Tennessee land grant corner."

(Rec. p. 404).

He testified further with reference to the Suter map, as follows:

"Mr. Barton: Did you know that in 1874, about fifteen months before this cut-off, the United States Government had a survey made for that very purpose, conducted by Suter, to run the steamship channel of the Mississippi River, to guide pilots?"

"A. No, sir. I knew, of course, that Maj. Suter run down the river and rated his trips and I am familiar with the Act of Congress under which he was doing his work, but my understanding has never been that he was trying to get information to aid pilots, but that he was getting data for the improvement of the Mississippi River, and it was the beginning of the improvements which finally resulted in the establishment of the Mississippi River Commission. Maj. Suter called it a reconnoissance. I was trying to remember the date that Congress established the light house system of the Mississippi River and the Act of Congress that did it, but I can't recall it. So far as I know that is the only official attempt to aid pilots in the navigation of the river and we all know the lights are changed up and down the river several times a year, and no pilot relies implicitly on the lights, I think the regular routine of the light house service is to make verifications, at least four verifications, of location of the lights a year; however, as to their regulations I am not positive. You will notice there is

nothing on Suter's map that could be used as a guide post for pilots; there is nothing marked on the shores."

"Q. What is that dotted channel all the way through?"

"A. That, I think, indicated the course that his steamboat followed going down."

"Q. In making four trips, up and down the river, you think they followed the steamboat channel?"

"A. Very likely, especially if he had a heavy boat."

"Q. Now, the location of this channel with reference to banks, you would assume to be fairly accurate with reference to the banks shown on the map, would you not?"

"A. Yes, in a general sense, but not making any attempt to show the channel of commerce, so-called."

"Q. Col. Suter states that that was one of the purposes, to show the direction and location of the channel."

"A. I think his testimony shows that he never intended his survey to be definite enough to be used in a lawsuit as evidence. I don't think he had that in mind."

"Mr. Fitzhugh: Can anybody take that map and locate the banks as shown on the Suter map at that time?"

"A. I think not."

"Q. Or the middle of the channel?"

"A. I think he would be a very credulous man who would take a map of the river even two years ago, and undertake to find out anything about the river by the present time."

"Q. But in 1876 there was nothing on the Suter map, which was fixed by metes and bounds, from which the middle of the channel of the river as he indicated it on that map could now be determined?"

"A. Not a thing in the world that I ever saw." (Rec. pp. 400, 401).

The plaintiff refers to the testimony of Mr. McSpadden as "an interested lawyer's opinion" because he had represented his brother-in-law, Mr. H. W. Stockley, in litigation with Mr. Cissna over land in this territory (Brief p. 10), notwithstanding the plaintiff introduced as evidence the testimony of Mr. Cissna as well as of Mr. C. B. Bailey who, prior to his becoming a member of the Commission, had been in the employ of Mr. W. A. Cissna as surveyor, and who stated that while in this employ he reached a conclusion as to what was the boundary line between the states of Arkansas and Tennessee over certain parts of the territory in question, and that his views were the same now as they were when he was in the employ of Mr. Cissna and at the time of giving the testimony introduced on behalf of the plaintiff.

(Rec. pp. 349, 350).

The testimony of both Mr. C. B. Bailey and Mr. W. A. Cissna is quoted in the brief of plaintiff, page 12, in support of the proposition that the channel of the river as it ran just prior to the cut-off "was easy to find."

The plaintiff further relies on the testimony of certain pilots and makes brief quotations from the testimony of L. E. Patton, F. W. Davis, W. P. Davis and William P. Hall. It is stated that Mr. Patton stated that the navigable channel was along the dotted line on the Suter map. He *did* say "that line there is about the way they ran along here," referring to the dotted line on Suter's map. He further testified, on cross-examination, as follows:

> "Q. You were under the impression that this map was the result of an actual survey, were you not?"
>
> "A. That was so understood."
>
> "Q. Did you know that this map by Mr. Suter was made merely from observations by him as he went twice down the river and twice up, and in no other way? I mean did you know that?"
>
> "A. No, I did not know that."
>
> (Rec. p. 205).

And further:

> "Mr. Fitzhugh: You stated in your former testimony, 'I suppose that map is drawn from scale.' You did suppose that, didn't you?"

"A. Yes."

"Q. In another part of your testimony you say that 'towboats coming down the river would not get as close to the bank as the line indicates where the deepest channel is.'"

"A. No. A good tow-boat pushes out in the river to avoid the 'set' of the bend."

(Rec. p. 207).

The testimony of a man looking at a map of this character, not drawn from scale, as to whether or not a line thereon represented the middle of the navigable channel of commerce as it existed about fifty years ago, would necessarily be very largely a mere conjecture on his part.

Mr. F. W. Davis, who is quoted as stating that they followed the dotted line, testified that he was "around there some before 1876; but, after that, a great deal."

And further:

"A. I steamboated from there to Osceola."

"Q. What I am getting at is, when this map was presented to you, did you assume that it was made from a survey and was accurate?"

"A. Well, it looked to me like Centennial Island was further down than it is here; of course, it may not have been. I thought it come down further; Island 37 was up; the head

of Centennial Island was opposite Speck's Landing; that used to be Molasses Point. Centennial Island was right across from Speck's place."

"Q. The head of it seemed to be about there, did it?"

"A. Yes, sir."

"Q. Did you have any very accurate information as to the channel of the river prior to 1876?"

"A. Only steamboating."

"Q. Did you pay much attention to it?"

"A. After 1876 I paid more attention than I did before. You see, at the time this cut-off was made I was running from St. Louis to New Orleans, and we claimed to be the third boat that went through the cut-off."

(Rec. p. 212).

It is apparent, therefore, that Mr. F. W. Davis had very little opportunity to become familiar with the middle of the channel of commerce in this particular territory prior to 1876.

Mr. W. P. Davis did not have any experience in steamboating in this part of the river prior to 1878. In fact, he did not get his license until that year (Rec. pp. 45 and 207). We quote further, as follows:

"Q. You stated a while ago that you did not know much about that particular part of the river?"

"A. No, I had not been in there much until I went in there with a steamboat in 1878."

"Q. You were shown this map here and asked regarding the dotted line representing the channel. You were speaking about the channel in 1878, when you were asked about this?"

"A. Yes; 1878, 1879 and 1880."

"Q. When you were being examined about the dotted line on Suter's map, showing the channel of the river, you were referring to your knowledge of the channel of the river as it was in 1878 and 1880?"

"A. Yes."

"Q. And to nothing else?"

"A. Yes, of course, it changes."

(Rec. p. 207).

Mr. William P. Hall, another pilot whose testimony is relied on, who was asked about this dotted line on the Suter map, stated: "I was not familiar with it before the cut-off; I commenced a year or two after the cut-off was made; the cut-off was made in 1876. About two years after the cut-off was made I commenced to run."

And, further:

"Q. Was the Tennessee bank opposite Dean's Island the high and caving bank?"

"A. I don't know about the banks before the cut-off; after the cut-off I have been around

old river; near the foot of Dean's Island the banks were generally sloping. That part of the river wasn't called old river until after the cut-off."

"Q. Did steamboats hug the Tennessee shores before the cut-off?"

"A. I don't know about before the cut-off. I commenced to run after the cut-off was made."

"Q. Did the river run around Island 37 before it was pushed down into McKenzie?"

"A. I suppose so, I was not familiar with the river until after the cut-off; I commenced running after the cut-off." (Rec. p. 52).

And this is the character of testimony of old pilots relied on to establish the boundary line between two sovereign states, in connection with a reconnoissance map which shows a line never actually surveyed and not located with reference to any fixed monument so that it could be delineated with any degree of certainty. It is the plaintiff's contention on page 8 of the brief of its learned counsel that "the Commission found that the Suter map, made from a steamboat reconnoissance in the fall of 1874, showed the line of navigation." And, further, on page 20, referring to the statement made by Commissioner Van Deventer (Rec. p. 405), that the idea he was clearly conveying was "that the Suter map, whereon was indicated the navigable channel, was (in the light of 'the testimony of the old pilots' and the whole evidence) found accurate or substantially accurate."

We respectfully submit that the testimony of these old pilots sheds a very dim and uncertain light on the location of the middle of the channel of commerce as it existed prior to 1876. Such testimony certainly does not enable a surveyor to run and locate the line on the Suter map. In order to strengthen the testimony of these old pilots, plaintiff quotes from the testimony of Mr. A. C. Edmonds, a farmer 75 years of age, that the line on the Suter map seemed to him to be "drawn about like they run" (Brief, p. 14). This witness further stated that he thought Island 39 was in Tennessee, and further:

> "Q. Please follow up the river as it used to be before the cut-off and tell how the boats used to run, if you know."
>
> "A. I don't know that I can tell you anything accurate about that."
>
> (Rec. pp. 50-51).

Moreover, while this good, old farmer was not very accurate about locating the channel of commerce, he knew a great deal more about the Trigg Plantation, which he states that he had been over from the time that he was big enough to run around until the cut-off. We quote from his testimony, as follows:

> "Q. How many times, do you suppose, you were on this Trigg Plantation prior to 1876?"
>
> "A. I could not tell you; I was there from the time I was big enough to run around until the cut-off."

"Q. That land just before the cut-off amounted to at least 1,000 or 1,200 acres in cultivation, did it not?"

"A. Yes, sir."

"Q. Mr. Edmonds, if the river ran along this point on the map of 1891, where this pencil mark is, on Exhibit —— to the deposition of Bentley—I refer to the pencil mark made by Commissioner Bailey—if that is where the river is placed prior to 1876, it would be right on land that was in actual cultivation, to your personal knowledge?"

"A. Yes, sir."

"Q. Prior to 1876?"

"A. Yes, sir."

"Q. If that were made the boundary, it would take from this Trigg tract of land that was in cultivation prior to 1876, a very large part of it that was in cultivation at that time, and put it over in Arkansas?"

"A. Yes, sir."

"Q. If we make that the boundary, and this is where the river was in 1876, it would put the river on cultivated land, would it not?"

"A. Yes."

"Q. You are not speaking from hearsay, but from your personal knowledge of the fact that there were 1,000 or 1,200 acres in cultivation in this Trigg tract just prior to the cut-off?"

"A. Yes, sir." (Rec. pp. 209, 210).

It should be borne in mind that he was referring to the tentative line which was the same as the permanent line adopted by the Commission as the boundary between the two states.

(Rec. pp. 505, 508, 511).

Mr. J. A. Osborn, another farmer, is quoted as saying that the Suter line looked to be approximately correct (Rec. p. 14). But, this same witness pointed out that the map was not correct in showing Island 39 in Tennessee. And further:

"Q. Do you know how the steamboats ran the main navigable channel? Examine the map and look at the dotted line; here is Pecan Point. Start here with Pecan Point, follow this dotted line and tell us what you know, whether that line is correct as to the way the steamboats ran in 1876?"

"A. That is not correct."

"Q. Why is it not correct?"

"A. They run through McKenzie Chute, sometimes the boats would run through here."

"Q. You mean run through McKenzie Chute?"

"A. Yes."

"Q. Tell us why the map is not correct, if it is not."

"A. This was the main channel around here; around north of 37, around by way of

Shawnee Landing was the old channel. After 1876 of course the boats run through the cut-off."

"Q. I want you to tell in what respect this Suter's map is not correct."

"A. The boats could come around through McKenzie Chute, but most of them went around this way, around by way of Shawnee Landing." (Rec. p. 60).

The testimony of these witnesses, to say the least, is rather vague and certainly not sufficiently accurate to enable a Court to determine that the Suter line, which never purported to be located by actual survey, was not only the middle of the channel of commerce, but that it can in the light of such testimony, be now definitely relocated and adjudicated to be the real boundary between the two states. The testimony of Major Humphreys and other witnesses, hereinbefore quoted, clearly show the physical obstacles in the way of such a finding, and it is no reflection on the Honorable Commissioners that nature had brought such changes since 1876 that any effort to locate the middle of the channel of commerce would necessarily result in serious errors being committed when there was no better guide than the Suter map and the testimony of pilots and others above referred to and relied on by the plaintiff to prove a line which was not susceptible of proof.

Commission Admits That Suter Map Was the Best Evidence Before It of Channel of Commerce, Just Prior to Avulsion of 1876.

From the report of the Commission, on page 2 of the record, we quote:

> "Exhibit D is Col. Suter's map made from a steamboat reconnoissance in the fall of 1874. This map does not purport to be strictly correct at all points as to latitude and longitude. But from the methods employed there is no reason why it should not be relatively correct. The Commissioners believe that a body of scientific observers going four times over this part of the river for the very purpose of making this kind of map and sketching their observations on the ground at the time, have more faithfully preserved the evidence than any other source to which we have had access. We believe the only evidence superior to this would be a survey which tied the channel line to existing monuments on the banks at the time. We, therefore, regard the Suter map as documentary evidence. The line of navigation, as shown on the Suter map, we find is also supported by the testimony of pilots and others familiar with the river at that time."

We have seen, from the testimony of Commissioner Bailey (Rec. p. 404), and the statement of the Chairman of the Commission, Mr. Van Deventer (Rec. p. 370), that the Commission, from the very

beginning, conceived that the dotted line of the Suter map represented the middle of the channel of commerce as it existed just prior to the cut-off, except that this dotted line should have been on the east side of Island 39, instead of on the west side, as indicated on the Suter map; and that they attempted, from the very beginning, to re-locate the line which had itself never been located by any measurements or instrumental observations, and had not even referred to or tied into lines, points or monuments whose geodetic position had been determined. In the above quotation from the report, the Commission states that the map does not purport to be strictly correct at all points, as to latitude and longitude, but that there was no reason why it should not be relatively correct. This map does not purport to tie the dotted line to any meridian of longitude, or parallel of latitude. Col. Suter and his party went up the river twice, and down the river twice, and made some observations from the deck of the steamboat. This reconnoissance was not made for the purpose of locating the middle of the channel of commerce. That the Commission misunderstood its purpose, is shown from the question asked by Commissioner Barton of one of the witnesses, Mr. McSpadden, as follows:

"By Mr. Barton:

"Q. Did you know that, in 1874, about fifteen months before this cut-off, the United States Government had a survey made for that very purpose, conducted by Suter, to run the

steamship channel of the Mississippi River, *to guide pilots?*"

"A. No, sir. I knew, of course, that Maj. Suter run down the river and rated his trips and I am familiar with the Act of Congress under which he was doing his work, but my understanding has never been that he was trying to get information to aid pilots, but that he was getting data for the improvement of the Mississippi River, and it was the beginning of the improvements which finally resulted in the establishment of the Mississippi River Commission. Maj. Suter called it a reconnoissance. I was trying to remember the date that Congress established the light house system of the Mississippi River and the Act of Congress that did it, but I can't recall it. So far as I know that is the only official attempt to aid pilots in the navigation of the river and we all know the lights are changed up and down the river several times a year, and no pilot relies implicity on the lights. I think the regular routine of the light house service is to make verifications, at least four verifications, of the location of the lights a year; however, as to their regulations I am not positive. You will notice there is nothing on Suter's map that could be used as a guidepost for pilots; there is nothing marked on the shores."

(Rec. p. 400).

Capt. E. E. Winslow, who testified on behalf of plaintiff, also made very plain the nature and pur-

pose of the Suter map; that it was not an accurate survey, or intended to be used as a guide to pilots, or to fix, with any accuracy, the middle of the channel of commerce as it existed before the cut-off. We quote from Capt. Winslow's testimony:

"Q. When was the Mississippi Commission organized?"

"A. In 1879."

"Q. Three years after the cut-off?"

"A. Yes, sir."

"Q. Who made this map?"

"A. It was made under the authority of the chief engineer of the United States Army Corps."

"Q. I will ask you if it is not a fact that no survey of the Mississippi River was made between 1858 and that made since the Mississippi River Commission was organized?"

"A. None except that in 1874, under the instructions of the Department of the Interior, when a rapid survey was made of the river below St. Louis. This rapid survey is what we call a steamboat reconnoissance. We embark on a steamboat and tie up at different places and make such observations as they think necessary. They then re-embark and proceed down the river a certain distance and tie up again.

"Q. Do you know whether or not the survey made in 1874 was of that character?"

"A. Yes, that is what is called a steamboat reconnoissance."

"Q. Does the map here show the minute details of the country, such as the land lines between the different owners along the bank?"

"A. No, it does not show any such things."

"Q. Then, can you say that that was an accurate survey of that country?"

"A. It was not." (Rec. p. 85).

Further:

"Q. A steamboat channel is shifting constantly, is it not?"

"A. But these channels shift regularly, following a fixed law. Any map as far as the channel is only good for the time it is made."

"Q. You spoke of certain laws, what are these laws?"

"A. One of them is that a channel follows a caving bank."

"Q. Being a member of the River Commission, I will ask you if it would have been safe for steamboats to have used that channel six months after the map was made?"

"A. Probably not absolutely."

"Q. Then a steamboat would not have used that map?"

"A. It probably would not; its inaccuracy would increase with time."

"Q. Before this map introduced here, which shows the steamboat channel by the dotted lines, I will ask you if it was made for the purpose of showing the steamboats the channel of the river?"

"A. No, it was made for the purpose of affording a preliminary study of the river."

(Rec. p. 86).

On page 34 of plaintiff's brief it is said that Captain Winslow had before him the map as part of the record of his office, and, when asked what the dotted line represented, he answered, "That dotted line represents the channel of the river in the year 1874." It is clear, in the light of the other testimony of Captain Winslow, that he merely meant to say that the dotted line *purported* to represent the channel of the river in the year 1874, because he had expressly declared it was not an accurate survey at all, but merely a steamboat reconnoissance, and, though he had this map for years as part of the records of his office, he declared that he could not plat the steamboat channel, at the time he testified, from any information which he had in the government office.

(Rec. p. 87).

The Suter map contains no reliable or accurate data, based upon actual measurements, which would enable any party of surveyors, however expert, to run and locate the said dotted line, and fix said line as the boundary between the states of Tennessee and Arkansas, on the principles established by this honorable Court.

Col. Suter Himself Admits That His Map Was Not an Actual Survey, and Was Not Made With Any Idea of Determining Anything Accurately by Metes and Bounds, But Was Merely a Sketch of General Conditions.

In his testimony which was given in the case of State of Tennessee vs. Muncie Pulp Company, and from that secord read into the record in this cause, Col. Suter stated that the funds at his disposal were comparatively small, and were entirely insufficient for any actual survey, and that the object of the reconnoissance was to get some idea of the condition of the river, and the portion of it needing improvements. From his own statement, the inference must be drawn that the reconnoissance map which the Commission regarded as sufficient, in the light of the testimony of pilots above mentioned, to enable them to locate with certainty the middle of the channel of commerce, which had never been surveyed, was not regarded by Col. Suter himself as being of any value for such a purpose, or for any purpose or use other than that for which it was made. We quote from his testimony:

> "The methods followed were somewhat crude, but were the best we could do. The party being in, as I said, a steamboat, the course of the river was taken by a compass. The distance was determined by the speed of the boat which had been accurately gauged before the party started. The widths of the river were, of course, estimated, but where it was possible

for it to stop for any length of time to get instructions ashore and triangulations and get the widths, it was done. That was used as a check and there were other points that enabled some kind of a check on the widths. The greatest difficulty was in the length, which, of course, the speed of the boat varying with the current and all that rendered it somewhat uncertain. The best that could be done was to take points about, say, thirty, forty or fifty miles where anything could be recognized as a town that was shown on the state maps. It enabled the difference in the longitude and latitude to be determined approximately and the lengths were determined by this reconnoissance. If the distances varied they were shortened all along the lines according to the judgment of him who had made the actual observations. There is one thing, of course, to be borne in mind in a case of this kind, that is, examination was not made with any idea of determining actually anything by metes and bounds. That was not the idea at all. It was to get a sketch at any rate, something showing what the river looked like and a general idea of the shape, direction and location of the channel, and show points like that."

(Rec. pp. 163, 164).

In the light of this testimony of Col. Suter himself as to the character and purpose of his map, it is not strange that neither the Supreme Court of Tennessee, nor the United States Circuit

Court of Appeals, in the opinion given by Judge Lurton, should have attached any importance to it as establishing the middle of the channel of commerce.

In State v. Muncie Pulp Company, 119 Tenn. 117, the Supreme Court of Tennessee said: "The chart is not a careful survey of the river and its banks, but in the main, from an inspection of it made from the deck of a steamboat"; basing this on the description given by Col. Suter himself of his reconnoissance and the character and purpose of the map.

A map, to be of any value for the purpose of locating any particular lines or objects thereon, must be based upon a survey accurately made by measurement and instrumental observations, and must be a faithful and correct delineation of a faithful survey, in every detail.

The Suter map is an excellent one for the purpose for which it was made, but for the use made of it by the Commission, it is necessarily wholly unreliable, as it can not be checked, nor verified. To use such a map, where accuracy is so important, as in the location of a boundary line between two sovereign states, is certain to lead to gross errors. Although, for certain purposes, when accuracy is of no great importance, reconnoissances are economical and useful; yet such a reconnoissance is practically valueless as a means of retracing or accurately fixing and locating points, lines and old river channels, if it was not properly referenced,

or tied, to some fixed point or monument, so that after the lapse of years it could be retraced with some degree of certainty.

The Commission admits that the Suter map was no guide through that part of the river running between Island 37 and the Arkansas shore, and as to this, it relied merely on the testimony of a few steamboat men, and alleged physical evidences observed on the ground. They also admit that the Suter map improperly indicated the channel of commerce as being west of Island 39, when, in fact, it was east of Island 39. It is significant that nowhere in the report does the Commission state that any banks of the river, as they existed prior to the cut-off, had been located, or that they could, from any observation on the ground, locate with any degree of accuracy the old channel or bed of the river as it existed just prior to the cut-off. The Commission was bound to know that, to rely upon physical evidences for the purpose of relocating old lines, streams, or rivers, even after the lapse of a comparatively few years, was almost certain to lead to grave errors, and this is especially true in the instant case, where the river left its channel and made a new one some distance away, the old channel having rapidly filled up, and after the lapse of nearly fifty years, practically obliterated all evidences of its former location.

In the "stipulation as to facts" (original record page 41), it is agreed that, after the avulsion, "the old bed immediately began to fill with sand, sediment and alluvial deposits, and bars formed in it."

And the uncontroverted proof is that, in a few years, the entire bed of the river was filled, and overgrown with trees.

The plaintiff's brief quotes Mr. C. B. Bailey (one of the Commissioners), and Mr. Cissna, who is vitally interested, and two or three other witnesses, as stating that old banks at certain points could be observed. But, civil engineer, J. H. Humphreys, who was more familiar with this territory than any other surveyor, testified positively, as we have seen, that what Mr. C. B. Bailey indicated on his map as the river bank was the bank of a pond.

(Rec. pp. 250, 251, 256).

He further testified that he had made many surveys, and gone over the territory numerous times, but could not state where the river bank of 1876 was (Rec. p. 252), nor could he undertake to locate the middle of the channel of the river of 1876 (Rec. p. 260).

The testimony of these same witnesses relied on by plaintiff was before the Supreme Court in the case of State v. Muncie Pulp Company, and the case of Stockley v. Cissna (See Rec. p. 80, where their evidence was read into the present record). And with reference to such testimony, the Supreme Court of Tennessee said:

> "There is also testimony of several witnesses tending to show that there is an elevation along the old river channel, considerably west of the original Dean's Island bend, which

they took to be and called the bank of 1876. This is mere speculation upon the part of these witnesses. They did not reside in the neighborhood previous to 1876, and they know nothing of the condition of things as they then existed. The witnesses examined in the case, old men who have lived in the neighborhood all their lives, and are familiar with the country and with the effects of freshets in the Mississippi River, say that there is no such bank; that what the defendants' witnesses took for banks are mere ridges or banks thrown up by the action of the water of the river during freshets, when the old bed was flooded, and the depressions near those banks mere channels that were washed out on such occasions." (119 Tenn. p. 121).

Further:

"In the nature of things and the history of such occurrences upon the Mississippi River, no one could doubt that it would be only a few years, at the furthermost, until the old bed should be entirely filled up and almost every vestige of its formerly being the channel of a great river gone." (119 Tenn. p. 123).

In view of the fact that the new channel was upon the direct general course of the river and only about one-twentieth the length of the old one, the fall—and it was very great—rendering it impossible for the waters of the river to return to their old bed, the entire bed filled up with great rapidity,

and, as a matter of course, with each year, evidences of the location of the old bed were erased. So that, after a lapse of nearly fifty years, the surveyor in attempting to retrace the course of the river as it existed prior to the cut-off is confronted with an almost impossible task, unless he can procure an accurate map from an actual survey, properly referenced, of the river in that vicinity before the cut-off took place. To attempt to do so without the aid of such a map would necessarily be more or less guess work, for he would have to rely on unreliable physical evidence, and equally unreliable evidence of steamboat men, as to where the channel of commerce actually was fifty years ago.

Evidence of Pilots Wholly Insufficient as a Basis for Locating With Accuracy the Middle of Channel of Commerce in 1876.

The learned Commission, while stating that the Suter map more faithfully preserved the evidence of the channel of commerce than any other source to which the Commission had access, and that the only evidence superior to this would be a survey which tied the channel line to existing monuments on the banks at the time (which evidence was lacking), nevertheless proceeded to undertake to locate this line, which they admit was not the result of a survey which had tied the channel to existing monuments on the banks, and, notwithstanding their admission of its inaccuracy in certain respects, deemed it sufficient documentary evidence of the

middle of the channel of commerce as it existed prior to the cut-off, in view of the testimony of a few pilots, who looked at this dotted line on the Suter map, and stated that it looked to them like the channel of commerce of 1876. How such testimony could enable the Commission to re-locate the Suter line, which itself had never been correctly located, or to establish said line as the middle of the channel of commerce, when it was never intended to so represent it, with any accuracy whatsoever, in so far as being a survey of the middle of the channel, or even of the channel as a whole, we are at a loss to understand. Some of the pilots had not even run the river prior to the cut-off. Some of them thought that the map was an actual survey, when they gave their opinion that the line looked like the channel of commerce to them. Others showed its inaccuracy in some particulars. We submit that it would be a dangerous precedent, to establish a boundary line between two states on the memory of about four steamboat men, as to how they ran their boats fifty years ago.

A pilot of a steamboat may, after such a long lapse of time, have a fair recollection of how he ran a certain bend in the river, whether he ran close to the shore, or stayed out into the stream, or whether he held his boat on a certain woodyard, landing, or residence, but such information is of no real value to a surveyor in attempting to relocate the course of the river, or the middle of the channel of commerce, since the pilot took no measurements, but only estimated or guessed at dis-

tances. A steamboat pilot's knowledge of the channel is general only. He only takes soundings when he feels that his boat is getting in shallow water, and does not determine the distance from the bank to a point where he takes the soundings; at such times, he may, or may not, be in the channel of commerce. Generally soundings are taken over some crossing; that is, where the channel crosses from one side of the river to the other. Deep water is or near the regular channel, he never sounds, for it is not necessary for his purpose. Therefore, he does not know definitely whether he is in the deep part of the river or not. He is not concerned as to that, so long as there is sufficient water for his boat to navigate with safety. In fact, the lead lines used on steamboats are only long enough to measure depths up to twenty-four feet. To keep the boat in water of sufficient depth to navigate safely is his principal concern. From the soundings he takes, he can not tell with certainty where the *thalweg* of the stream is located. Even if he sounded accurately and determined the line of maximum depth, or the *thalweg* of the stream, that would be of no particular value to a surveyor, unless he located that line accurately with reference to the points on the bank of the stream. To illustrate how the channel of a stream should be located, in order that it may be retraced at a later date, attention is invited to Chart No. 18 of the Mississippi River Commission's Survey (Rec. p. 515). By examining that chart, it will be noted that soundings were taken from one side to the other of the river, making regular

cross-sections. Those soundings are accurately located with reference to the river bank, and a line can be drawn through the line of maximum depths, to represent accurately the *thalweg* of the stream as it existed at the time the soundings were made. Comparing the Suter map (Rec. p. 506), it can be noted that the said Suter map contains no soundings; the dotted line which is said to indicate the channel or *thalweg* of the stream was never located with reference to fixed points on the banks, and, therefore, can not be retraced with any degree of accuracy, after the lapse of time. While the soundings on the Mississippi River Chart No. 18 are accurately located, even they can not be relied upon to accurately represent the channel of the river a year or two later, for it is a well known fact that the channel of the Mississippi River is constantly changing. Conceding that a pilot, like Mr. W. P. Davis, did run his boat within fifty or seventy-five feet of the shore, as he claims, it does not follow that he was in the middle of the channel of commerce, for the transverse under-water slope in concave bends is much flatter than the slope of the bank from the water surface to the top of the bank; that is to say, the slope of the bottom of the river from the water's edge out to the *thalweg* of the stream is rather gradual. The fact that a steamboat ran the bends close into the shore does not mean that the middle of the channel of commerce is close to the bank. Due to a general transverse slope of the bottom of the river, the middle of the channel might be several hundred feet out from the river bank, which fact many cross-sections made

of the Mississippi River have proven. Steamboat men frequently run their boats in what they consider the deepest water, when the *thalweg* may be quite a distance from the course of the boat. Moreover, because a few pilots say that they went in close to the Tennessee shore between Dean's Island and the Tennessee mainland, and between Dean's Island and Island 37, when the undisputed proof is that, just prior to the cut-off, the width of the river at this point was a mile to a mile and a quarter (Rec. pp. 236, 239, 314), when they could have proceeded on a shorter course, and certainly with as much, if not more, safety, is unreasonable.

As applicable to this phase of the case, we quote from the opinion of this honorable Court in Minnesota vs. Wisconsin, 252 U. S., p. 282:

> "The doctrine of Thalweg, a modification of the more ancient principle which required equal division of territory, was adopted in order to preserve to each State equality of right in the beneficial use of the stream as a means of communication. Accordingly, the middle of the principal channel of navigation is commonly accepted as the boundary. Equality in the beneficial use often would be defeated, rather than promoted, by fixing the boundary on a given line merely because it connects points of greatest depth. Deepest water and the principal navigable channel are not necessarily the same. The rule has direct reference to actual or probable use in the ordinary course, and common experience shows that vessels do not

follow a narrow, crooked channel close to shore, however deep, when they can proceed on a safer and more direct one with sufficient water."

With the river a mile to a mile and a quarter wide in the vicinity aforesaid, the Commission has attempted to locate the main navigable channel prior to the cut-off by a line on a map which was not the result of any survey, but which the Commission says is supported by testimony of a few steamboat men that they ran their boats in deep water very close to a caving bank on the Tennessee shore, thus pursuing a longer and more dangerous course, when they could have proceeded on a safer and more direct one, with sufficient water. We say that such testimony is wholly unreliable, in the first place, and, in the second place, that through it the plaintiff is, in effect, insisting that the doctrine of Thalweg requires the Court to say that the main navigable channel is the deepest. To so apply it in this case would defeat its fundamental purpose, to preserve to each of the States its equal right to the navigation of the stream.

In the instant case the dotted line on the Suter map, in view of the width of the river between Dean's Island and the Tennessee shore, and between Dean's Island and Island 37, is probably at least a half-mile from the middle of the main navigable channel of 1876, where boats could have pursued a more direct course, with sufficient water, and with greater safety. And the Commission, in establishing this line as the middle of the main

navigable channel as it existed in 1876, was not only acting without any real proof of its accuracy, in the absence of any map which is the result of an actual survey, but was, we respectfully insist, depriving the defendant of its just rights, under the doctrine adopted by this honorable Court in determining the boundary line between two sovereign States separated by a navigable stream.

Exceptions V and VI.

Exception No. 5 is to the effect that that part of the boundary line east of what is now Centennial Island was based on what is shown as the Suter line and that said Suter line itself could not furnish a proper basis for such boundary line. We have already discussed this under Exception 4. We desire, however, to call attention to one or two statements made by counsel for plaintiff with reference to our contention under this exception.

On page 16 of plaintiff's brief we find the following:

> "He erroneously states that the boundary line as run by the Commission 'was based entirely on what is known as the Suter reconnoissance map of 1874' (Exceptions p. 5). The statement is unwarrantedly erroneous."

The first few lines of Exception No. 5 read as follows:

"Because the boundary line reported by the Commission, *except the portion between Island 37 and Arkansas,* was based entirely on what is known as the Suter Reconnoissance map of 1874," etc.

It will thus be seen that we did not insist that the entire boundary line was based on this report, but expressly excluded the portion between Island 37 and the Arkansas shore. We claim we were justified in the statement that the other portion of the boundary line east of what is now Centennial Island, and east of Island 37, was based on the Suter map.

It is further stated on page 19 of plaintiff's brief that there is no excuse for stating that the Commission admitted that if it "had not laid out the Suter line," then it had "proceeded on entirely the wrong theory."

It is claimed that we cited the Commissioner's report, page 2, in support of this statement. There were two citations under this, viz:

Commissioner's Report, page 2, where the Commission had declared in effect that the Suter map had "more faithfully preserved the evidence than any other source to which we have had access. We believe the only evidence superior to this would be a survey which tied the channel line to existing monuments to the bank at the time."

The other citation was to Record, page 370, in support of the admission of Commissioners that it proceeded on the wrong theory if it had not laid out the Suter line.

We have already shown that the statement made by the Chairman, Mr. Van Deventer, that this was the theory of the Commission, was not controverted by either of the other Commissioners present, and we therefore felt entirely justified in taking the Chairman's statement as an admission of the Commission itself. (See Rec. p. 370; also p. 405).

Moreover, inasmuch as the Commission had no survey which tied the channel line to existing monuments on the banks at the time, and as it stated in its report that the only evidence superior to the Suter map, would be such a survey, it is too clear to admit of controversy in view of this statement in the report in connection with the statement of the Chairman of the Commission, who claimed he was voicing the opinion and theory of the Commission, and in view of the testimony of Commissioner Bailey (Rec. p. 405), that the unsurveyed Suter line *was* the basis of the boundary line recommended by the Commission between Dean's Island and the Tennessee shore and between Dean's Island and what is now Centennial Island, and defendant's insistence is that such a line could not be located with any reasonable certainty either from the said Suter map alone, or in the light of the testimony of pilots, which we insist added nothing to the Suter map, in the way of data from which the Suter line could be definitely fixed and

located as the middle of the main navigable channel.

Exception VI relates to the finding of the Commission that the line of navigation as shown on the Suter map was supported by testimony of pilots, and that the main navigable channel of 1876 could be established from such testimony and the physical evidence to be observed on the ground. We have already discussed this in considering Exception No. 4.

Exception VII.

This exception relates to the finding of the Commission that at the foot of Brandywine Island, the Suter map "shows a line on each side of Island 39" (Report, p. 3). This finding that the Suter map showed any channel line as represented by a dotted line on each side of Island 39, was wholly erroneous. The Suter map had a dotted line on only one side of Island 39, and that was the west side, and indicated that Island 39 was in Tennessee, which illustrated the contention of the defendant that the Suter map was merely a sketch of general conditions, and was not intended to be an accurate survey of the river at any point.

We call attention to map marked Exhibit 3 to LeVasseur's deposition (p. 8, supplemental report), which will be found to be a reproduction of the Suter map, with meridians of longitude and parallels of latitude placed thereon. This map shows that the dotted line of the Suter map is much farther east

than the boundary line of the Commission, which they attempted to run in accordance with the said Suter line. We also call attention to map, being Exhibit 9 to deposition of LeVasseur (p. 10 of supplemental report), the accuracy of which as to distance and measurements between Dean's Island and Island 37 and the Tennessee shore is shown by the testimony of C. R. Suter (Rec. pp. 181, 183). This map also shows that a large part of the Suter line east of what is now Centennial Island was east of longitude 90 degrees 4 minutes, whereas the said line adopted as the boundary line by the Commission is midway between 90 degrees 4 minutes and 90 degrees 5 minutes.

Moreover, this map shows what Captain LeVasseur contended was the middle of the channel prior to the cut-off, at the point opposite the Trigg tract was midway between 90 degrees 3 minutes and 90 degrees 4 minutes. We also call attention to map, Exhibit D to testimony of J. H. Humphreys (p. 7 of supplemental report), which gives Mr. Humphreys' idea of the low water line of 1876 on the Tennessee side, which is east of the Trigg tract and shows, as found by the Supreme Court of Tennessee, and the United States Circuit Court of Appeals, that the 131 acres in the northeast part of this Trigg tract was unquestionably in Tennessee at the time of the cut-off.

It is true, as stated by the learned counsel for the plaintiff, that, in the exceptions filed by the defendant, there is probably too much repetition. The idea was to present in various phases the contentions of

the defendant with reference to the report of the Commissioners, and in the argument we have attempted to group them.

On page 71 of plaintiff's brief attention is called to reference in Exception XII-a to the "east side of Centennial cut-off," and it is stated that this indicates that the defendant's counsel does not understand the topography. Of course the word "cut-off" was a typographical error, or due to carelessness in proof-reading, and should have been "island."

It is also stated that we made reference to the fact that there could have been no caving along the east end of Centennial Island during the process of the cut-off or the period of readjustment. Then our ignorance is sought to be exposed by the statement that "Centennial Island was made by the cut-off."

We should have said what is now the east end of Centennial Island, but the context clearly shows that this was intended. We find that the learned counsel for the plaintiff, falling into similar error, on page 80 of his brief, has this to say:

> "We could call attention to other evidence as to the east end of Centennial Island before the cut-off, but the foregoing ought to be sufficient."

CONVINCING AFFIRMATIVE PROOF OF INACCURACY OF THE BOUNDARY LINE RECOMMENDED BY THE COMMISSION

Exceptions VIII, IX, X, XI.

Under these exceptions defendant presents its insistence that the boundary line recommended by the Commission which runs between Dean's Island and Island 37, or what is now Centennial Island, represented on Exhibit B (Rec. p. 505), that is, the part lying between Stations 28 to 31, inclusive, conflicts with the principles announced by this Court and specifically set forth in Paragraph 3 of the interlocutory decree as follows:

> "The boundary line between the said states should now be located along that portion of the bed of said river that was left dry as the result of said avulsion according to the middle of the main navigable channel as it existed at the time the current ceased to flow therein as the result of said avulsion."
>
> Arkansas v. Tennessee, 247 U. S. 461.

It is the position of the defendant that, according to reliable documentary proof and the testimony of witnesses that could not be impeached, that part of this boundary line runs through land that was in actual cultivation as a farm at the time of the avulsion of 1876. On map known as Exhibit

E, Sheet No. 7, page 508 of the record, and on map known as Chart 18, at page 513 of the record, the Commission has traced in red the boundary line east of the present shore line of Centennial Island, and it will be noted that this line east of Centennial Island, lies about midway between meridians of longitude 90 degrees 4 minutes and 90 degrees 5 minutes. Exhibit B, which is the boundary line as run by courses and distances shows the same thing (Rec. p. 505). What is known as the Trigg Plantation extended considerably east of this line at the time of the cut-off. We call your Honors' attention to what is known as the Huddleston 2,000-acre tract, which is shown on the Humphreys map, exhibited with defendant's answer at pages 50 and 51 of the original record; also on the map of J. A. Green, Exhibit 10 (Rec. p. 510), and on Sheet No. 7, Exhibit A to the deposition of C. J. Bentley, page 12 of Supplemental Report of Commissioners.

It will be noted the north and northeastern boundary of this tract was the Mississippi River and McKenzie Chute, and that, immediately east of this Huddleston 2,000-acre tract was what is known as the Bateman 155 acres. This is also sometimes referred to as the Walt tract, because a man by the name of Walt married one of the Bateman heirs (Rec. p. 304).

See also Burke map, Rec. p. 509.

The Humphreys map, exhibit to the answer, at page 51, and also page 7 of the supplemental report, shows as a part of this Huddleston tract, 131 acres

in the northeastern part thereof, lying on the river. Of this 2,000-acre tract Huddleston conveyed the east 1,500 acres to John Trigg, who, in 1862, conveyed the west 500 acres of his 1,500-acre tract to his daughter, Lucy Jane Stockley. Mrs. Stockley's 500 acres are indicated on the Humphreys map.

To the John Trigg tract, of which the east 1,000 acres was devised by said John Trigg to his son, W. W. Trigg, and bordering on the northeastern side a distance of 35 chains on the Mississippi River (Rec. pp. 414, 416 and 430), there were added accretions on this northeast side, as well as the north side, bordering on the McKenzie Chute, from two hundred to three hundred acres, so that, at the time of the avulsion, what is known as the Trigg Plantation, contained between twelve hundred and thirteen hundred acres. That there were accretions northeast of this tract, bordering on McKenzie Chute, is shown by the Suter map itself, Exhibit D (Rec. p. 506), and the reproduction thereof, Exhibit 8 to supplemental report, clearly shows sand, gravel, willows and heavy timber on the portion of said tract bordering on McKenzie Chute. The same is shown by government survey, Exhibit E, Sheet No. 7 (Rec. p. 508).

That there was any substantial caving of the Trigg Plantation on the northeastern boundary thereof was not only negatived by proof of these accretions, shown by maps above referred to and by the testimony of witnesses, but also by the fact that the course of the river was such that there was no hydraulic pressure against this portion of the

Trigg tract, and by the further indisputable proof that at the time of the cut-off the Trigg Plantation contained between twelve hundred and thirteen hundred acres, and that the river, in making this cut-off, went directly through this Trigg tract, carrying away about a thousand acres thereof.

The eastern boundary of this Trigg tract at the time of the cut-off was between longitude 90 degrees and 3 minutes and 90 degrees and 4 minutes, while the boundary line recommended by the Commission is between 90 degrees 4 minutes and 90 degrees 5 minutes. On the government survey, Sheet No. 7, Exhibit A to deposition of C. J. Bentley, page 12 of Supplemental Report of Commissioners, the Humphreys map is superimposed by an expert and this shows the northeastern boundary of the Huddleston tract, as well as the east boundary thereof, to be between longitude 90 degrees 3 minutes and 90 degrees 4 minutes. This is also shown by the map of J. A. Green, Exhibit 10 (Rec. p. 510). Sheet No. 7, page 12 of supplemental report of Commissioners, also clearly illustrates how the Centennial Cut-off was made directly through this Trigg Plantation. This fact is further strikingly illustrated by the Burke map, page 3 of supplemental report of Commissioners, which shows that the cut-off went directly through the Trigg tract and left a small tract of 33.75 acres on the Tennessee mainland, which is described on said map as open land, and 305 acres north of the cut-off which was part of the tract that had bordered on the McKenzie Chute. On this portion of the tract are houses, showing that the land was in cul-

tivation. This map was the result of a survey made by Civil Engineer Burke in 1877 for the purpose of ascertaining what part of the Trigg one thousand acres remained after the avulsion, and this map was accompanied by a report which said Burke made to the Chancery Court of Shelby County, in the case of T. A. Nelson v. M. L. Trigg, et al., No. 775, as shown by the map itself.

In these reports to the court, accompanying said map, Burke stated that out of the Trigg tract "The cut-off has placed nearly one thousand acres under the bed of the Mississippi River," leaving two tracts aforesaid, one of 33.75 acres and the other of 305.75 acres, about a mile apart, the cut-off being between the same.

Decrees of the Chancery Court of Shelby County, vesting title in the lands sold by it, recited as a finding of fact based on the report of said Burke that these two tracts were portions that were left of a "certain tract of about thirteen hundred acres," of which one thousand acres had gone into the river as the result of the cut-off (Rec. pp. 387, 418, 420 and 426). Deeds were made through the Chancery Court, containing recitals to the same effect.

This Burke map in connection with his reports to the Chancery Court, and the decrees made in pursuance thereof showing that there were thirteen hundred acres in the Trigg tract at the time of the cut-off, refute the claim of the Commissioners that there had been any appreciable caving on the

northeast portion of the Trigg tract bounding on the river, which, from its very nature, was not a caving bank (Rec. pp. 420, 426), and is in absolute harmony with the overwhelming proof on this subject.

Having no map which was made from any survey representing the channel of the river as it existed prior to the cut-off, being deprived of the benefit of any reliable evidence whatsoever as to the exact location of the main navigable channel at this point, the Commission was necessarily placed at a very great disadvantage in attempting to locate the so-called Suter line, which it regarded as the best evidence as to where the main channel was prior to the avulsion, so that, when they attempted to run a line which had never been surveyed or tied to any fixed point or monument in the way of section lines or land grants, it necessarily had to resort to mere estimates, not to say conjectures, and as a result of the effort to run a line under difficulties which were practically insurmountable, we find that the said line, when placed on maps which have section lines, grant lines, meridians of longitude and latitude, cannot stand the test of physical conditions and instrumental measurements.

Unless a very large part of the Trigg one-thousand-acre tract, in fact, unless practically one-half thereof, had gone into the river prior to the cut-off, then the boundary line recommended by the Commission is radically wrong because it runs considerably west of the eastern boundary of the

said one-thousand-acre tract, which was between longitude 90 degrees 3 minutes and 90 degrees 4 minutes, while the boundary line at this point was almost a mile west. To put it differently, if the Trigg tract, which was the east one thousand acres of the Huddleston grant, contained at the time of the avulsion, anything like a thousand acres or even six or seven hundred acres, the boundary line recommended by the Commission would represent the river as passing over this plantation prior to the cut-off. This can be demonstrated by placing this line in its proper place with reference to longitude and latitude on the Green map (Rec. p. 510), and on Sheet No. 7, Exhibit A to deposition of C. J. Bentley (page 12 of Supplemental Report; also map, Rec. p. 508).

The map made by Mr. Green is a copy of the map made by Mr. Humphreys on a different scale and has indicated on it latitude and longitude. Mr. Green, being an abstracter and surveyor, thoroughly familiar with the physical conditions, having access to accurate data and maps, was certainly equipped to make an accurate transfer of the Humphreys map and comparing his map with Chart No. 18 (Rec. p. 513), no appreciable error can be detected in latitude and longitude. Mr. Green was familiar with the boundary lines of the Trigg one-thousand-acre tract and with reference to the boundary line which is traced in red by the Commission on Survey Chart No. 18 (Rec. p. 510), midway between longitude 90 degrees and 4 min-

utes and 90 degrees 5 minutes, and with reference to his own map, testified as follows:

"Q. Have you indicated on this the latitude and longitude?

"A. Yes.

"Q. Is the eastern and southern boundary of the Trigg tract shown on this map, and if so, tell where it is located with reference to the longitude, between what?

"A. The east line is between 90 degrees, 3 minutes, and 90 degrees, 4 minutes.

"Q. The east line is almost midway between 90 degrees, 3 minutes and 90 degrees, 4 minutes?

"A. Yes, sir.

"Q. Where is the tentative boundary submitted by the Commission on Chart 18; where is the longitude?

"A. That is between 90 degrees, 4 minutes, and 90 degrees, 5 minutes.

"Q. This tentative boundary line on Chart 18 runs through the main portion of the Trigg tract?

"A. Yes, sir.

"Q. And the eastern boundary line is considerably east of this tentative boundary?

"A. Yes, sir.